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ABSTRACT

This report presents the findings of the eighth year of the application of the Tennessee Technological University Teacher Evaluation Model. Designed by the university to evaluate its teacher education program, the basic instrumentation has been mail surveys, interviews, and classroom observations. The information gathered on working graduates is used for curriculum evaluation and long-range planning. Surveyed for this report were those graduates teaching within a 75-mile radius of the university who had completed either the bachelor of science (B.S.) or the master of arts (M.A.) program in teaching between 1977 and 1980. The first chapter describes the purpose, procedures, and limitations of the study. Chapter II presents and interprets the data for the current year of the study (1980) and compares the results with those in earlier years. In Chapter III, summaries of two special studies are presented, one providing in-depth analysis on M.A. graduates, and the other summarizing findings on graduates of the Intervention Program for Improvement of Early Childhood and Elementary Teaching. Chapter IV presents: (1) a brief summary of the total evaluation effort; (2) the major conclusions of the study; (3) recommendations based on the conclusions; and (4) a summary of the plans for the 1981-82 graduate study. A list of references pertaining to the teacher preparation programs at the university is appended. (FG)

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STUDY OF THE TEACHER PREPARATION PROGRAMS OF

TENNESSEE TECHNOLOGICAL UNIVERSITY

REPORT 81-2

TENNESSEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL-YEAR VIII

Report Prepared by:

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August 1981

Tennessee Technological University

Cookeville, Tennessee 38501

ABSTRACT

TENNESSEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL - YEAR VIII

In 1973 Tennessee Technological University developed and implemented a model for systematic data gathering and for making evaluations of the programs in teacher education. The specific objective of the use of the longitudinal model was the evaluation and subsequent modification and improvement of the programs for the preparation of teachers at the bachelor's and master's levels. During the eighth year of the operation of the project (1980-1981) four distinct groups of graduates who had completed either the bachelor's or master's degrees, with major emphasis in a teaching field participated in the study. The sample size by year of graduation was as follows: (1) 1977, 10; (2) 1978, 12; (3) 1979, 33; and (4) 1980, 57 (including 40 M.A. and 17 B.S. graduates). Detailed information was collected on each subject by use of standardized instruments administered by specially trained graduate assistants or from University records. Basic instrumentation and procedures were pilot tested during the first year of the operation of the model and have remained essentially unchanged. Basic instrumentation includes (1) University records; (2) principal's evaluations; (3) the California F-Scale; (4) a measure of the satisfaction of the students of the graduates; and (5) observation by trained observers using Flanders Interaction Analysis, the Classroom Observation Record and the Tuckman Teacher Feedback Form. All data obtained as a part of the study were classified, coded and key punched for analysis. Descriptive statistics and comparisons were computed.

The major findings of the study for the first year subjects were similar to those reported in the past seven years of the study. Comparisons between the B.S. and M.A. graduates indicated few significant differences. However, the general trend indicated that those individuals with the M.A. were functioning at a higher level. A comparison of first year data gathered across five years indicated there had been a gradual decrease in scores and ratings, although in most cases not significantly. The differences noted were minor and in most cases no explanation could be offered for the changes. An examination of first year master degree recipients over a four year period indicated few differences. However, there was a trend toward lower scores and ratings in 1980 as compared with data collected in 1977. An examination of three years of data collected about 1978 graduates indicated few differences across the years. In general, scores and ratings were higher in 1980-81 as compared with 1978-79 data. Conclusions and recommendations have been advanced from the results that are being used to modify and improve the teacher education programs of the University.

Based on the results of the study and the applications that have been made in improving the teacher education programs of the University, the model has become a permanent operational feature of the College of Education. Initial plans are being made for improving the overall design of the model based on recent educational research into evaluation methodology and the characteristics of good teaching.

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PREFACE

For the past eleven years, attention has been given to the evaluation of the graduates of the teacher education programs of Tennessee Technological University. Followup studies of all graduates have been conducted on a regular basis and special studies have been carried out to provide input for the overall operation of the programs of the University. In order to improve the system of evaluation at the institution, an intensive longitudinal study was initiated in the fall of 1973 of the graduates. This study has been continued each year through 1980-81 utilizing a modified model that was previously developed for evaluating the graduates of teacher education programs. Reports of the results of the application of the model for the period 1973-74 through 1979-80 are available through the ERIC system or from the Office of the Associate Dean of the College of Education of Tennessee Technological University.

The purpose of this report was to present the findings of the eighth year of the application of the Tennessee Technological University Teacher Evaluation Model. In turn, this report will be utilized by providing input into the total system of teacher education at the University. This report is by no means complete; however, it serves to inform the reader of the basic procedures used and the preliminary findings of the eighth year of the study. In order to conserve paper, only essential information was presented.

The author of this report is indebted to the efforts of several individuals that have been extensively involved in working with the project during the past year. These individuals include: Glenda S. Qualls, Analyst; Marlene Payant, Graduate Assistant; Paula Wilkerson, Graduate Assistant; Terry Huffman, Secretary; Sharon Heard, Secretary; and John D. Thomas, Associate Professor of Educational Psychology and Counselor Education. In addition, thanks are extended to all principals, teachers, superintendents, and other school personnel that provided technical assistance, data, and allowed the project staff to work with them in various ways.

Jerry B. Ayers
Associate Dean
College of Education
August 1981

CHAPTER I

INTRODUCTION AND PROCEDURES

Introduction

Beginning in 1970, a series of separate studies was begun related to the evaluation of students enrolled in and graduates of the teacher education programs of Tennessee Technological University. The research has been systematic and designed to meet standards established by the National Council for Accreditation of Teacher Education, as well as to answer such questions as course effectiveness, the proper sequence of courses, factors related to achievement, success of the graduates after entering the teaching profession, better methods of instruction, and the degree of achievement of the stated competencies of the teacher education program. It should be noted that there are companion studies to evaluate the programs designed to prepare school service personnel at the M.A. and Ed.S. levels (see Appendix).

The works of Sandefur and Adams (1 - 3) led to the development of a model (Tennessee Technological University Teacher Evaluation Model) for the evaluation of graduates of the programs of the University designed to prepare teachers at the bachelor's and master's levels (4). During 1973-1974 the Evaluation Model was implemented and continued through 1980-1981 with funds available from the budget of the College of Education of the University. The results of the application of the model were summarized in a series of yearly reports (5 - 11). These reports are available through the ERIC system.

The eighth year of the application of the Evaluation Model was initiated in the fall of 1980. The remainder of this chapter describes the purpose of the eighth year of the operation of the model and limiations of and the procedures used in conducting the major phases of the study. Chapter II contains presentations and interpretations of the data for the current year of the study and comparisons with earlier years. Chapter III consists of summaries of several special studies that were completed or partially completed during 1980-81. Complete copies of the papers are available through the Office of the Associate Dean, the ERIC System or the indicated professional journals. Chapter IV contains a summary, conclusions and recommendations, and tentative plans for continuation of the study during 1981-1982. The Appendix contains a listing of all evaluative studies that have been conducted as a part of the efforts of the Office of the Associate Dean.

Purposes

The purposes of the study reported in this document included the following:

1. To provide information for faculty and administrators concerned with teacher education programs at Tennessee Technological University in making decisions pertinent to curriculum evaluation and development.

2. To aid in the process of making long-range plans for improving the total program of the University with particular emphasis on the teacher education program.

3. To continue the development and refinement of the Tennessee Technological University Teacher Evaluation Model.

Specific objectives to be accomplished as a part of this study were as follows:

1. To continue studying in a longitudinal manner those subjects who had previously participated in the application of the Model (1977-1978 through 1979-1980).

2. To provide a descriptive profile of a sample of 1980 B.S. and M.A. graduates of the teacher education programs of Tennessee Technological University.

3. To determine relationships among selected variables that were measured as a part of the total study.

4. To provide comparisons between the graduates of the teacher education programs of Tennessee Technological University with those who might be considered as effective teachers as defined in the literature of teacher education.

5. To disseminate relevant research data to the faculty and administration of the University.

6. To provide information and suggestions for curriculum evaluation and development based on empirical research data.

7. To continue to evaluate the procedures employed in the study and to make long-range plans for modifications and refinement of the basic Evaluation Model.

Limitations

The general limitations for this study were primarily concerned with sampling techniques:

1. Subjects for the study were individuals who were 1980 graduates of a bachelor's or master's level program at Tennessee Technological University designed to prepare them as teachers or they were individuals who participated in the study during the period 1977-1978 through 1979-1980.

2. Subjects were teaching in the State of Tennessee within a 75-mile radius of Cookeville, Tennessee (Approximately 65 percent of all graduates of the teacher education programs of the University, that were teaching, resided within the specified geographical limits of the study.)

3. The subjects volunteered to participate in the study.

4. The subjects who participated in the study received the permission of their principals and superintendents.

5. The sample sizes of the 1977, 1978, and 1979 graduates were reduced each year by about 35 percent due to attrition from the teaching profession or moving out of the geographical limits of the study. Therefore, the findings of the study may be limited in their applicability to the population of graduates from the University and also other institutions.

Limitations 1 through 4 above were imposed in order to make the study more feasible regarding the followup of the graduates. Voluntary participation was deemed necessary due to the extensive collection of data and completion of forms. The limitation of an 80-mile radius of Cookeville, Tennessee was necessary because of the limited travel funds available and the time available for the research assistants to visit in the classrooms of the participating subjects.

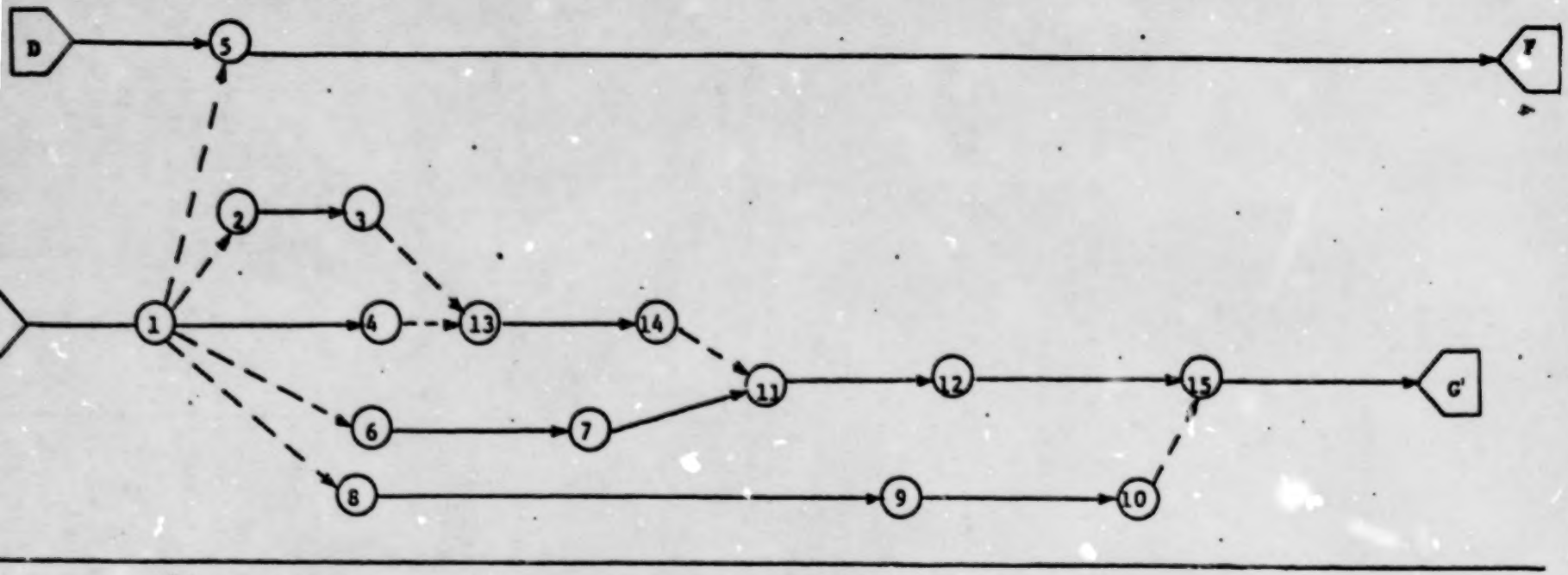
Procedure

The purpose of this section was to provide the reader with a brief description of the procedures employed in collecting data utilized in this study. This section was concerned specifically with selection of subjects, implementation of the study, training of staff, and methods of data collection and analysis. Figure 1 shows a PERT chart of the major activities of the project from September 1980 through June 1981. In order to conserve space the reader is referred to previous reports (5-11) for a more complete descriptions of such topics as instrumentation and training of observers.

Selection of Subjects

Four groups of subjects participated in the 1980-81 phase of the project. The first group of individuals (1977 graduates) was participating in the project for the fourth year, while the second group (1978 graduates) was participating for the third year. The third and fourth groups consisted of those individuals that received either the B.S. or M.A. in, respectively, 1979 or 1980. Table 1 shows a summary of the number of individuals (by year of graduation) participating in each phase of the study, and Table 2 shows a summary of the grade level in which the subjects were teaching during 1980-1981.

Table 3 shows a summary of the reasons and numbers of individuals failing to participate in the 1980-1981 phase of the study. This table shows the number withdrawing from the study by original date of graduation from the University. Between 1979-1980 and 1980-1981, 44 individuals withdrew; 20 individuals (45.5 percent) felt the objectives of the project were not compatable with personal objectives, 1 individual (2.3 percent) left the teaching profession, 15 individuals (34.1 percent) moved out of the service area of the project, and 8 individuals (18.2 percent) gave another reason, no reason, or could not be located. The overall attrition between the two years of 44 individuals was 38.9 percent. This figure is comparable with the level of attrition between other years of the study (6 - 11). Table 4 shows a comparison of sample size, across all years, from which actual usable data were collected.



9/80 1/81 4/81 7/81

Summary of Activities

1-4 Finalize Plans for Visiting Subjects in 1977-79 Phases of Study
2-3 Training of Observers
5— Continuing Contact With Other Projects and Survey of the Literature
6-7 Survey All 1980 Graduates
8-9 Conduct Other Related Studies
9-10 Prepare Reports of Related Studies
7-11 Select Sample of 1980 Graduates for Intensive Study as Part of Followup
11-12 Make School Visits on 1980 Graduates
13-14 Make School Visits on 1977-79 Graduates
12-15 Complete Reports and Submit
15--- Begin Making Plans for 1981-82 Phase of Study

Figure 1: PERT Chart of Major Activities for 1980-81

TABLE 1

NUMBER OF SUBJECTS BY YEAR OF GRADUATION PARTICIPATING IN EACH PHASE OF STUDY

Phase of Study	1975	1976	1977	1978	1979	1980	Total
1975-1976	12/32	--	--	--	--	--	12/32*
1976-1977	5/20	5/21	--	--	--	--	10/41
1977-1978	5/13	2/14	23/30	--	--	--	30/57
1978-1979	5/8	3/8	14/13	21/36	--	--	43/65
1979-1980	1/4	2/4	9/10	11/11	20/41	--	43/70
1980-1981	--	--	5/5	5/7	12/21	40/17	62/50

*No. M.A./No. B.S.

TABLE 2

SAMPLE FOR INTENSIVE FOLLOWUP - 1980-1981

Year	K	1-3	4-7	8-12**	SPED	Total
1977	0/0	0/0	2/3	2/2	1/0	5/5*
1978	1/0	0/0	1/1	2/3	1/3	5/7
1979	3/3	3/2	0/6	3/5	3/5	12/21
1980	3/0	5/3	8/4	14/4	10/6	40/17
Total	7/3	8/5	11/14	21/14	15/14	62/50

*No. M.A./B.A.

**Teaching areas: 1-Accounting, 1-Bible, 1-Business, 1-Computer Science, 1-Drafting, 1-Driver Education, 6-English, 1-Health, 3-History, 2-Industrial Arts, 5-Math, 3-Music, 2-Physical Education, 1-Psychology, 4-Science, and 1-Sociology.

TABLE 3

REASONS AND NUMBER OF INDIVIDUALS DROPPING OUT OF STUDY FROM 1979-1980 to 1980-1981 (BY YEAR OF GRADUATION FROM UNIVERSITY)

Reason	1977	1978	1979	Total
Felt objectives of project were not compatable with personal objectives	3	4	13	20
Presently not teaching - looking for a job	0	0	1	1
Left teaching profession	0	0	1	1
Unable to locate (No response to questionnaire, phone calls or no forwarding address at Post Office)	1	0	0	1
On maternity leave	0	0	1	1
Moved out of service area	1	1	1	3
Removed from the study when service area was narrowed	2	4	6	12
Other reason	0	1	4	5
No reason given	0	0	1	1
Total	8	10	27	45

TABLE 4

COMPARISON OF SAMPLE SIZES ACROSS YEARS

Year of Graduation	1973	1974	1975	1976	1977	1978	1979	1980
1973	57	35	27	21	15	--	--	--
1974	--	48	26	22	14	9	--	--
1975	--	--	44	23	17	11	5	--
1976	--	--	--	26	16	11	6	--
1977	--	--	--	--	50	26	19	10
1978	--	--	--	--	--	45	22	12
1979	--	--	--	--	--	--	61	33
1980	--	--	--	--	--	--	--	57
Total	57	83	97	92	112	102	113	112

As a part of the routine followup activities of the Office of the Associate Dean, all 1980 graduates of the teacher education programs were contacted in the late fall of 1980 (229 B.S. graduates and 167 M.A. graduates). As a result of this initial survey (12), all graduates who were teaching within the defined geographical limits of the project were contacted by mail and/or telephone and asked to participate in this study. A total of 17 B.S. and 40 M.A. level graduates volunteered to participate (see Tables 1 and 2).

Figure 2 shows a map of selected portions of Tennessee. The numerals within each county indicate the number of individuals who participated in the study during the 1980-1981 year. Table 5 shows a summary of the number of individuals by year of graduation participating from each county.

Instrumentation

Instrumentation for the 1980-1981 study was identical to that used during the past several years of the project. The reader is referred to Reports 77-2 and 78-2 (8, 9) for more information with regard to instrumentation.

Training of Observers

The procedures for the training of observers were outlined in Reports 74-4 and 77-2 (5,8).

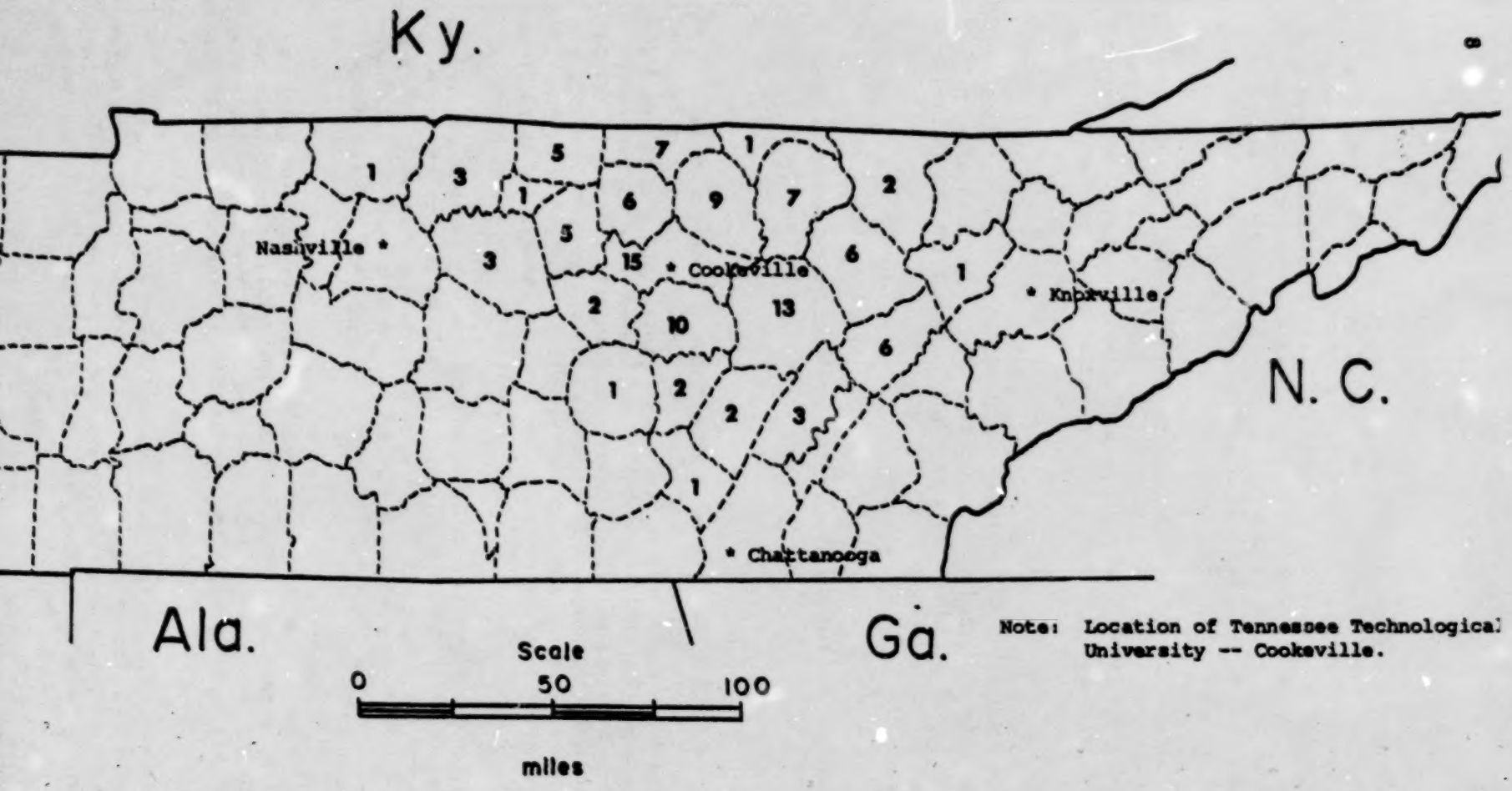
Collection of Data

Data for this study were collected by mail surveys, interviews and observations in the classrooms of graduates. Initially, all subjects were contacted by mail and dates were set for observational visits by the graduate research assistants (both previous subjects and new subjects in the study). These dates were verified with the appropriate administrative authorities in each school and school system. A letter explaining the project in detail was sent to all subjects, principals, and superintendents. The subjects, their principals, and superintendents were invited to make comments and suggestions for conducting the study.

Each subject was visited on at least one occasion by the trained graduate assistant. The observer spent approximately a half day in each subject's classroom and completed from two to six 20 minute periods observing, using a ten category system of interaction analysis. At the completion of all observations, the Classroom Observation Record and the Tuckman Teacher Feedback Form were completed.

The appropriate version of the Student Evaluation of Teaching (SET) was administered during the visit. The instrument was completed by at least one class of students. While the students were completing the SET, subjects who were participating in the project for the first year completed the California F-Scale.

During the course of the day, the observer interviewed each student with regard to their opinions and ideas about the teacher preparation program of the University. Also, the observers asked each principal to complete the Principals Questionnaire and also the Teacher Evaluation by Supervisor Form.



Note: Location of Tennessee Technological University -- Cookeville.

Figure 2. Number of Participants By County in 1980-81 Phase of the Study.

Pertinent data such as quality point average, National Teacher Examination scores, etc., were collected from the permanent records of all 1980 graduates.

TABLE 5

NUMBER OF SUBJECTS BY DATE OF GRADUATION AND COUNTY IN WHICH TEACHING 1980-1981

County	1977	1978	1979	1980	Total
Anderson			1		1
Bledsoe			2		2
Clay				7	7
Cumberland	2	2	4	5	13
DeKalb		1		1	2
Fentress	1		2	4	7
Jackson	1		3	2	6
Macon			1	4	5
Morgan		1	2	3	6
Overton		1	3	5	9
Pickett				1	1
Putnam	3	1	8	3	15
Rhea				3	3
Roane		1	1	4	6
Robertson	1				1
Scott				2	2
Sequatchie				1	1
Smith		1	1	3	5
Sumner	1	1	1		3
Trousdale				1	1
Van Buren		1		1	2
Warren				1	1
White	1	2	4	3	10
Wilson				3	3
Total	10	12	33	57	112

Analysis of Data

Basic descriptive and inferential statistical methods were used to analyze the data. These techniques were described in more detail at the appropriate points in this report.

Summary

In summary, this chapter contains a brief overview of the total operation of the 1980-1981 phase of the longitudinal study of the graduates of the teacher education programs of Tennessee Technological University. Included in this chapter was a summary statement of the major purposes of the project, limitations of the study and the major procedures employed in conducting the study. Data were gathered from four major sources including self or personal, from supervisors and principals, students of the graduates, and by independent observers. Included in the chapter is a listing of the major instruments used in gathering data from the four primary sources. The major purposes and procedures of the project have remained virtually unchanged over the seven years of the study. It was felt the information available from this report and the companion reports completed during the period 1974 through 1980 will be useful to those individuals attempting to replicate this study. It should be pointed out that additional information and specifics related to methodology employed in this study were available from the Office of the Associate Dean, College of Education.

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CHAPTER II

PRESENTATION AND ANALYSIS OF DATA FOR 1980 GRADUATES AND COMPARISONS WITH ALL FIRST YEAR GRADUATES 1976-1979

Chapter II contains a presentation and analyses of data for those individuals who received the B.S. or M.A. in 1980 and were participating in the study for the first time. Also shown are comparisons of the data with other first year participants for the period 1976 through 1979. These comparisons were confined to those individuals with the B.S.

The data for the B.S. subjects were presented in six parts, each corresponding to major instruments used to gather data. Each section contained a summary statement as well as a discussion of the relevant variables that were correlated. A seventh section shows comparison data between the 1980 B.S. and M.A. Graduates. Tables 6 and 7 show intercorrelation matrices of selected variables for respectively the B.S. and M.A. graduates. Only variables significant at or beyond the .05 level were discussed in the remainder of this report. It should be noted that the correlation patterns are somewhat similar to those reported in earlier years of the study.

An understanding of Chapter I of this report is essential for the effective utilization of Chapters II through IV. Also, reports 74-4, 75-4, 76-1, 77-2, 78-2, 79-2 and 80-2 should be used as companion guides to obtain additional information that may be of interest to the reader. The Appendix of this report contains a complete listing of all studies conducted in the past ten years that may provide additional information about the evaluation studies conducted of the teacher preparation programs. Selected reports contain complete instrumentation used in the studies.

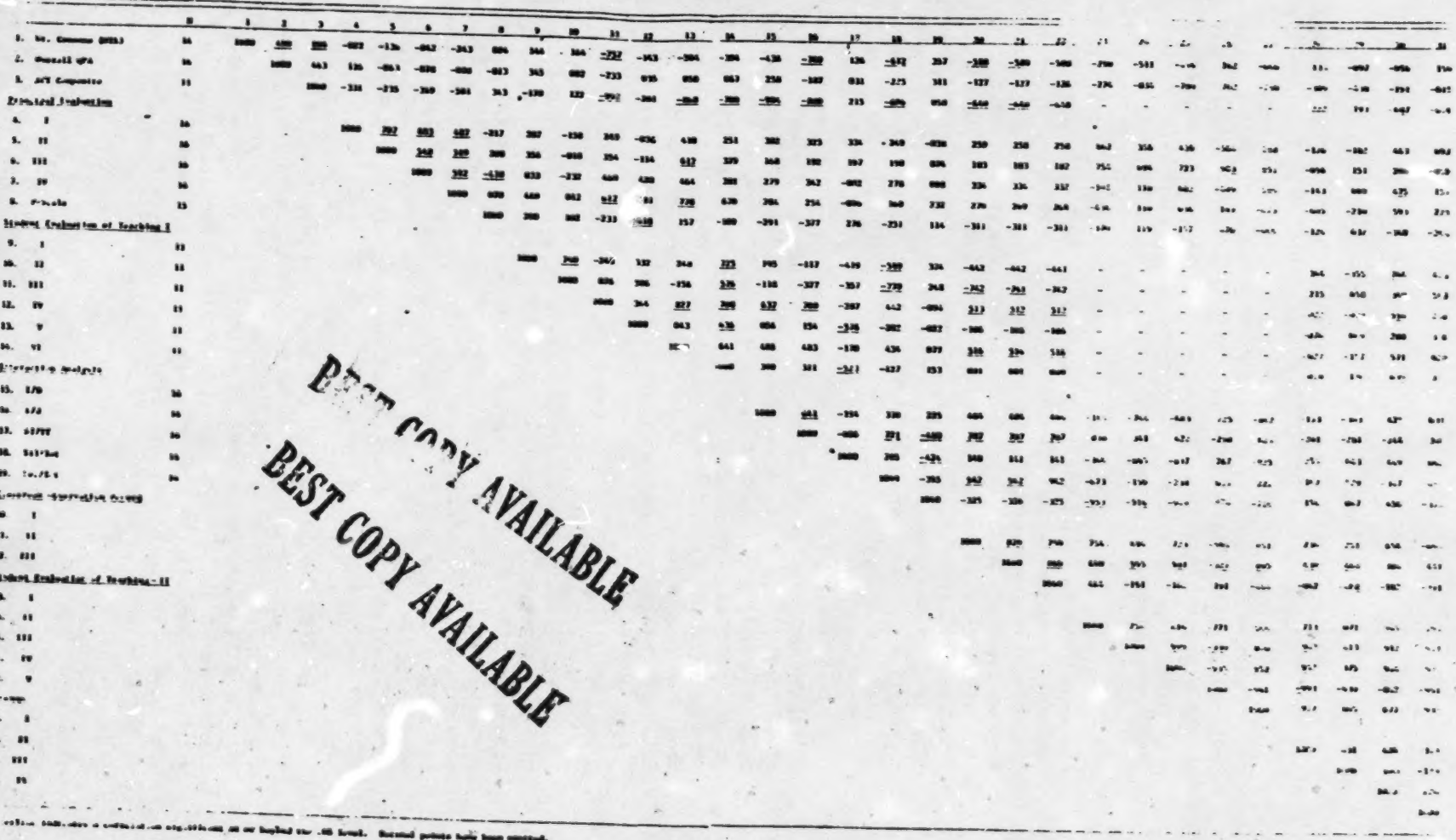
Career Base Line Data

This section contains a summary of preliminary career base line data for the 1980 B.S. subjects in the study. Included in this section was information taken from each subject's college transcript and other records available in the College of Education of the University. Also included were scores from the California F-Scale. Additional base line data for the 1980 graduates can be found in Report 81-1 (1). In order to avoid duplication and also to present the data in a more usable form each table shows comparisons with other first year subjects in the study from 1975 through 1978.

The B.S. level subjects who were participating in the study for the first year in 1980 appeared to be similar to those from previous years. The mean quality point average for four years of study was 3.06 (SD=0.56) for the elementary group and 3.07 (SD=0.29) for the secondary group. The means were slightly below those (not significantly) reported for the 1979 group. In general the subjects who have participated in the study in the past have achieved higher quality point averages than the average graduate of the University's teacher preparation programs.

TABLE 6

CORRELATION MATRIX OF SELECTED VARIABLES - U.S. CHARGERS IN FIRST TIER OF STUDY*



* Any value underlined is significant at the .05 level. Decimal points have been omitted.

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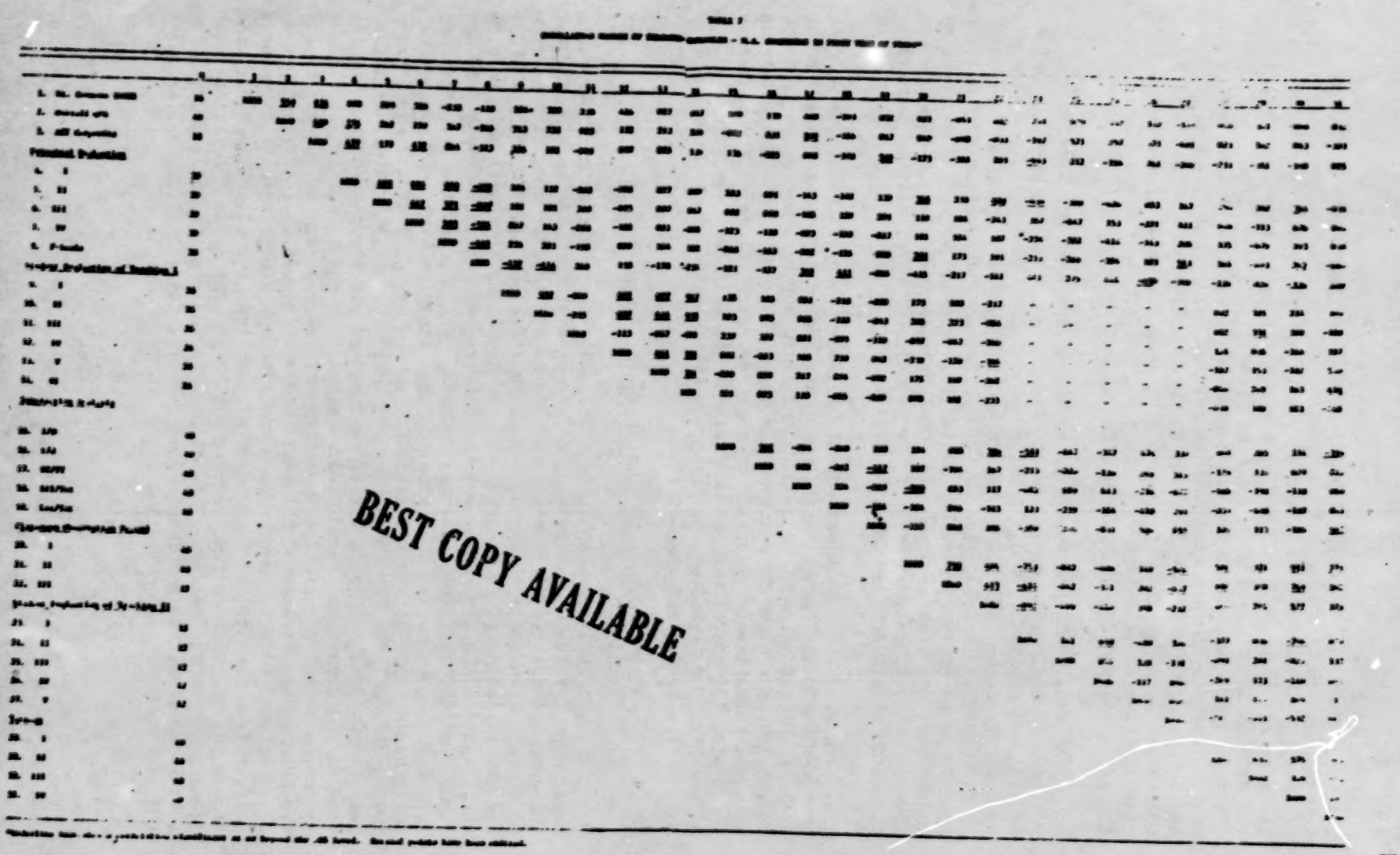

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Table 8 shows a comparison of the American College Test scores (ACT) for the period 1976 through 1980 for first year elementary subjects. In general the subjects were below the mean for all students enrolled at the University. Use of the analysis of variance techniques indicated the subjects in the 1980 group had achieved a significantly lower mean score on the mathematics and social science sections of the test than subjects in other groups. In general the trend has been toward lower mean ACT scores. Table 9 shows a comparison of ACT scores for the secondary group. In general there were no significant differences across the groups. The small N in some cases does not allow for meaningful comparisons of the data. Significant negative correlations were noted between ACT scores and scores from the SET-I Interaction Analysis and the COR.

The California F-Scale Forms 45 and 40 was used to assess one aspect of the personality of the subjects. The F-Scale range of possible values was 28 to 196 with 112 the mid-point. The lower the values, the more non-authoritarian the indication. The mean score for all graduates who have participated in the study is 100. Table 10 shows a comparison of all first year subjects by level, for the period 1976 through 1980. In general, secondary subjects tended to be more authoritarian than elementary subjects, however the differences were not significant. The correlation pattern indicated no significant relationships.

Table 11 shows a comparison of Weighted Common Examinations Scores from the National Teacher Examinations for elementary and secondary subjects by year of graduation. In general secondary subjects had slightly higher scores than the elementary subjects. However, once again, the differences were not significant. Significant positive correlations of NTE scores were noted with ACT scores and overall QPA, and the Weighted Common Examinations of the NTE, and negative correlations with the F-Scale, and lively and interesting score from the SET-I.

Principal Evaluations of Subjects

The principal of each subject was asked to complete two instruments designed to evaluate weaknesses and strengths of the individual. The first instrument consisted of 59 items related to the teacher education program of the subjects and has been used over the past ten years. The results were very similar to those previously reported and have been omitted from this report. The second instrument, the Teacher Evaluation by Supervisor form, consists of four questions encompassing the following areas: (a) subject matter competence, (b) relations with students, (c) appropriateness of assignments, and (d) overall effectiveness. Tables 12 and 13 show, respectively, the data for the elementary and secondary groups during their first year in the study. Over the five year period there appeared to have been a gradual increase in the mean ratings given to the subjects in the elementary groups. There are variables among the secondary groups and no clear pattern was established because of the small N size. Significant correlations were noted between various factors from the principals evaluation instrument and factors from the Student Evaluation of Teaching, the Classroom Observation Record and the Tuckman Teacher Feedback Form. The factor "Relations with Students" from the principals' questionnaire was significantly related to the democratic procedure and total score from the SET-I, all factors of the COR and TTFF.

TABLE 8

COMPARISON OF ACT SCORES FOR FIRST YEAR ELEMENTARY TEACHERS (1976-1980)

Score	1976 (N=15)		1977 (N=14)		1978 (N=17)		1979 (N=20)		1980 (N=8)	
	X	SD	X	SD	X	SD	X	SD	X	SD
English	19.1	3.0	20.0	3.9	19.1	3.7	18.5	4.4	16.6	5.0
Mathematics	16.7	6.0	17.4	6.7	13.7	6.7	15.7	5.8	13.4	8.2
Social Science	17.9	6.2	19.6	7.4	16.6	7.0	16.1	7.1	13.9	6.8
Science	20.2	3.7	19.6	5.6	19.8	4.6	17.8	5.4	17.6	5.2
Composite	18.7	3.8	19.4	5.1	17.6	4.5	17.1	4.7	15.4	4.6

TABLE 9

COMPARISON OF ACT SCORES FOR FIRST YEAR SECONDARY TEACHERS (1976-1980)

Score	1976 (N=4)		1977 (N=10)		1978 (N=4)		1979 (N=13)		1980 (N=5)	
	X	SD	X	SD	X	SD	X	SD	X	SD
English	19.8	4.1	18.6	4.5	19.5	1.3	18.3	5.4	19.0	1.0
Mathematics	16.0	9.1	19.6	7.6	21.8	1.7	22.2	6.4	15.7	2.5
Social Science	19.5	4.8	19.5	5.7	22.5	3.7	17.7	7.5	12.0	3.5
Science	22.3	1.5	20.4	7.7	19.8	3.5	21.1	5.4	23.7	5.0
Composite	19.5	3.1	19.8	5.8	21.0	2.2	19.8	4.5	17.7	2.5

TABLE 10

COMPARISONS OF F-SCALE SCORES FOR FIRST YEAR ELEMENTARY AND SECONDARY TEACHERS (1976-1980)

Level	1976			1977			1978			1979			1980		
	N	X	SD	N	X	SD	N	X	SD	N	X	SD	N	X	SD
Elementary	11	95.9	13.7	17	99.5	20.8	21	103.4	22.2	21	105.2	18.5	11	110.5	15.7
Secondary	4	113.3	17.8	11	103.3	27.8	6	96.4	9.9	17	110.6	16.4	5	114.0	20.6

TABLE 11

COMPARISON OF WEIGHTED COMMON EXAMINATIONS SCORES FROM THE NTE FOR FIRST YEAR ELEMENTARY AND SECONDARY TEACHERS (1976-1980)

Level	1976			1977			1978			1979			1980		
	N	X	SD	N	X	SD	N	X	SD	N	X	SD	N	X	SD
Elementary	17	584.5	56.9	19	581.6	63.0	19	574.2	61.7	22	567.2	61.9	9	577.6	88.5
Secondary	4	597.3	45.6	11	585.3	30.2	6	606.5	73.6	17	579.6	83.7	5	585.3	54.6

TABLE 12

COMPARISON OF PRINCIPALS' RATINGS OF FIRST YEAR ELEMENTARY TEACHERS (1976-1980)

	FACTOR	1976 (N=16) $\bar{X}$	1976 (N=16) SD	1977 (N=18) $\bar{X}$	1977 (N=18) SD	1978 (N=14) $\bar{X}$	1978 (N=14) SD	1979 (N=24) $\bar{X}$	1979 (N=24) SD	1980 (N=11) $\bar{X}$	1980 (N=11) SD
I	SUBJECT MATTER COMPETENCE	4.4	0.7	4.3	0.7	4.5	0.6	4.3	0.8	4.3	0.8
II	RELATIONS WITH STUDENTS	4.6	0.6	4.4	0.6	4.4	0.9	4.5	0.7	4.5	0.7
III	APPROPRIATENESS OF ASSIGNMENTS	4.4	0.7	4.4	0.6	4.3	1.1	4.3	0.7	4.5	0.5
IV	OVERALL EFFECTIVENESS	4.5	0.6	4.2	0.7	4.4	0.7	4.3	0.7	4.5	0.5

TABLE 13

COMPARISON OF PRINCIPALS' RATINGS OF FIRST YEAR SECONDARY TEACHERS (1976-1980)

	FACTOR	1976 (N=4) $\bar{X}$	1976 (N=4) SD	1977 (N=9) $\bar{X}$	1977 (N=9) SD	1978 (N=3) $\bar{X}$	1978 (N=3) SD	1979 (N=17) $\bar{X}$	1979 (N=17) SD	1980 (N=5) $\bar{X}$	1980 (N=5) SD
I	SUBJECT MATTER COMPETENCE	4.0	0.0	3.9	0.6	4.0	1.0	4.2	0.7	4.2	0.8
II	RELATIONS WITH STUDENTS	4.3	0.5	4.3	0.7	4.7	0.6	4.0	1.0	4.4	0.9
III	APPROPRIATENESS OF ASSIGNMENTS	4.0	0.0	3.9	0.6	4.0	1.0	4.1	0.9	4.2	0.5
IV	OVERALL EFFECTIVENESS	3.8	0.5	3.8	0.4	4.0	1.0	4.2	0.8	4.2	0.8

Student Evaluation of Teaching

Two forms of the Student Evaluation of Teaching were employed in the study. The SET-I was used with children in the classes of subjects above the third grade, while the SET-II was used with children below the fourth grade. The instruments measure similar traits. Table 14 shows the data for the Student Evaluation of Teaching-I for those elementary subjects teaching in grades 4 through 6. In general there are few differences across the five years. Table 15 shows similar data for the secondary grades. The wide variations were due to the small sample sizes. Significant positive correlations were noted between the first, third and fifth factors and the total score and the third factor of the TTFF (oganization and control). Significant positive correlations were also noted between Factor Three (lively and interesting) and the indirect to direct teaching ratios from the interaction analysis and the three factors of the COR. Thus it appeared student and independent observers perceptions of the teachers were similar. No explanation can be offered for the negative correlations of the SET-I with the interaction analysis and COR scores.

Student Evaluation of Teaching-II data was collected for those subjects teaching in grades K-3. This data is shown in Table 16 and again indicates few differences across the five year period. Significant relations were noted between the factors from the instrument and other factors from the TTFF. Students and independent observers appeared to be evaluating the teachers in the same manner.

Interaction Analysis

A ten category interaction analysis system was utilized to record observed classroom behavior of the subjects. The system proposed by Amidon and Flanders was implemented with the aid of two specially trained graduate assistants. A set of three to four observations was made on each subject. Each set contained from two to eight 20-minute periods of observations.

Tables 17 and 18 show the pertinent data gathered respectively on the elementary and secondary groups. The i/d ratios reported are above average for teachers reported in earlier studies. More indirect teaching has been associated in some studies with higher student achievement and positive attitude formation. The I/D ratio is also higher than the ratio of less than 1.00 reported for the average teacher. The subjects in this study used more acceptance of feeling, praising, or encouragement than average teachers. Other ratios in Table 17 and 18 are similar to the ratios for teachers reported in other studies. There were few differences between the groups and across the years. As would be expected secondary subjects were lecturing much more than elementary subjects. There were high intercorrelations among the various elements of the interaction analysis, however, correlations with other variables were limited to those noted above.

Classroom Observation Record

The Classroom Observation Record was completed on each subject by the observers at the conclusion of each visit. The instrument consisted of 22 items, four designed to assess pupil behavior and the remaining 18 assess dimensions of teacher behavior. Previous studies led to the conclusion that

TABLE 14

COMPARISON OF SET I SCORES FOR FIRST YEAR ELEMENTARY TEACHERS (1976-1980)

FACTOR	1976 (N=7) X̄	1976 (N=7) SD	1977 (N=7) X̄	1977 (N=7) SD	1978 (N=8) X̄	1978 (N=8) SD	1979 (N=7) X̄	1979 (N=7) SD	1980 (N=7) X̄	1980 (N=7) SD
I FRIENDLY AND CHEERFUL	330.5	37.8	335.0	62.1	334.6	46.3	337.9	36.8	341.6	48.2
II KNOWLEDGEABLE AND POISED	315.2	46.1	312.6	47.4	355.4	26.9	340.1	26.3	326.4	53.8
III LIVELY AND INTERESTING	286.0	35.1	296.3	30.3	301.0	39.7	309.9	28.7	309.1	68.1
IV FIRM CONTROL (DISCIPLINE)	295.3	33.5	285.7	77.8	311.1	35.6	309.6	41.9	338.0	43.3
V NON-DIRECTIVE (DEMOCRATIC PROCEDURE)	271.3	35.1	222.7	43.9	285.0	40.8	284.6	57.0	266.3	53.0
COMPOSITE SCORE	299.7	23.5	290.1	40.6	317.4	28.9	316.4	24.7	316.3	26.8

TABLE 15

COMPARISON OF SET I SCORES FOR FIRST YEAR SECONDARY TEACHERS (1976–1980)

FACTOR	1976 (N=4) $\bar{X}$	1976 (N=4) SD	1977 (N=11) $\bar{X}$	1977 (N=11) SD	1978 (N=6) $\bar{X}$	1978 (N=6) SD	1979 (N=18) $\bar{X}$	1979 (N=18) SD	1980 (N=4) $\bar{X}$	1980 (N=4) SD
I FRIENDLY AND CHEERFUL	365.5	13.7	333.1	30.0	338.8	31.8	316.8	51.8	307.0	77.9
II KNOWLEDGEABLE AND POISED	350.0	16.9	333.3	21.9	299.8	39.9	335.6	34.2	328.3	34.1
III LIVELY AND INTERESTING	304.8	40.8	282.8	20.0	272.8	67.2	279.9	62.0	267.3	70.4
IV FIRM CONTROL (DISCIPLINE)	277.3	29.6	285.5	30.8	246.0	40.8	292.2	39.5	283.8	68.8
V NON-DIRECTIVE (DEMOCRATIC PROCEDURE)	281.8	58.0	265.8	52.8	204.3	40.6	227.2	58.8	238.8	76.3
COMPOSITE SCORE	315.8	18.9	309.2	28.0	263.5	31.7	291.8	37.9	285.0	54.7

TABLE 16

COMPARISON OF SET-II SCORES FOR FIRST YEAR ELEMENTARY TEACHERS (1976-1980)

	FACTOR	1976 (N=8)		1977 (N=10)		1978 (N=12)		1979 (N=16)		1980 (N=4)	
		X	SD	X	SD	X	SD	X	SD	X	SD
I	RAPPORT	5.66	0.37	5.52	0.61	5.45	1.78	5.40	0.53	6.06	0.10
II	INTERACTIONAL COMPETENCE	4.60	0.31	4.68	0.78	4.87	1.00	4.78	0.90	4.89	0.65
III	STIMULATING, INTERACTION STYLE (COMBINATION OF RAPPORT AND INTERACTIONAL COMPETENCE)	10.28	0.55	9.37	2.78	10.92	2.34	10.12	0.64	10.96	0.73
IV	UNREASONABLE NEGATIVITY	8.83	0.60	8.21	1.80	8.06	1.55	8.57	0.73	8.63	0.51
V	POSTERANCE OF SELF-ESTEEM	6.83	0.47	6.78	0.79	6.94	0.65	6.76	0.50	6.74	1.27

TABLE 17

COMPARISON OF RATIOS FROM INTERACTION ANALYSIS FOR FIRST YEAR ELEMENTARY TEACHERS (1976-1980)

RATIO	1976 (N=10)		1977 (N=19)		1978 (N=19)		1979 (N=24)		1980 (N=8)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I/D	1.98	2.25	2.85	7.31	1.01	1.11	0.91	0.70	0.64	0.23
i/d	0.73	0.41	1.50	1.68	0.73	0.51	0.60	0.32	0.61	0.23
ST/TT	0.88	0.87	0.50	0.23	0.54	0.25	0.63	0.18	0.69	0.12
Sil/Tot	0.30	0.48	0.32	0.28	0.41	0.20	0.47	0.27	0.35	0.17
Lec/Tot	0.28	0.08	0.26	0.23	0.42	0.15	0.46	0.14	0.30	0.14

TABLE 18

COMPARISON OF RATIOS FROM INTERACTION ANALYSIS FOR FIRST YEAR SECONDARY TEACHERS (1976-1980)

RATIO	1976 (N=4)		1977 (N=11)		1978 (N=6)		1979 (N=17)		1980 (N=5)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I/D	5.48	3.63	3.43	4.97	1.37	1.44	0.99	1.15	0.46	0.19
i/d	0.51	0.33	1.26	1.22	0.54	1.03	0.33	0.25	0.38	0.10
ST/TT	1.17	0.83	1.26	1.69	0.49	0.19	0.45	0.21	0.41	0.16
Sil/Tot	0.17	0.19	0.33	0.30	0.36	0.25	0.42	0.29	0.47	0.08
Lec/Tot	0.65	0.12	0.29	0.18	0.59	0.38	0.61	0.17	0.38	0.19

the instrument was measuring three factors as follows: Factor I consisted of items 10, 12, 14, 15, 16, 17 and 18, and corresponded in part to Ryans' Y_o factor of responsible, systematic, businesslike versus evading, unplanned, slipshod teacher behavior; Factor II consisted of items 5, 6, 7, 8, 9, 11, 13, 20, 21 and 22, and corresponded to Ryans' X_o factor of kindly, understanding friendly versus aloof, egocentric, restricted teacher behavior; Factor III consisted of items 1, 2, 3 and 4 which described pupil behavior (2). Scores from individual items were summed to obtain a factor score. Tables 19 and 20 contained summaries of the means and standard deviations for the three factor scores for the two groups. Again, few differences were noted between the groups and across the five years of data reported.

Tuckman Teacher Feedback Form

The Tuckman Teacher Feedback Form (TTFF) was introduced during the 1976-1977 phase of the study to add another dimension of observation. Tables 21 and 22 contain comparison data for the two groups for the five year period of use of the instrument. Again, no differences were noted across the groups or years in the study.

Comparison of B.S. and M.A. Data

Forty graduates of the M.A. program participated for the first year in the 1980-1982 phase of the application of the Tennessee Technological University Teacher Evaluation Model. The purpose of this section was to present the data accumulated by application of the various instruments and to show comparisons with the results of the application of the model to the B.S. graduates. The mean overall quality point average for the subjects (achieved during their graduate programs was 3.72 with a standard deviation of 0.20. This compared favorably with the quality point average of 3.67 (SD= .29) achieved by the 18 M.A. graduates who participated in the study during 1979-1980. The mean score achieved by 17 of the graduates on the Weighted Commons Examination of the NTE was 569 (SD=76.9). It should be noted that the graduates completed the test during their senior year in college. The F-Scale score for the M.A. graduates was 94.3 (SD=17.6) indicating that the graduates tended to be less authoritarian in their beliefs than the B.S. subjects.

Principal Ratings

Table 23 shows a comparison of the principal ratings of the B.S. and M.A. graduates by teaching level. In general, the ratings attained by the M.A. graduates were slightly lower than for the B.S. graduates. Significant positive correlations (Table 7) were noted between the principals' ratings and the student ratings of the subjects in the area of Democratic Procedure and on factors from the COR. No explanation can be offered for these correlations. Other significant correlations were noted in a pattern similar to that reported for the B.S. subjects.

Student Evaluation of Teaching

Table 24 shows comparison data for application of the SET-I. In general M.A. subjects were rated higher by their students than were B.S. subjects. Table 25 shows comparison data of the application of the SET-II in the classrooms of both B.S. and M.A. subjects. In general, M.A. subjects

TABLE 19

COMPARISON OF COR FACTORS FOR FIRST YEAR ELEMENTARY TEACHERS (1976-1980)

	1976 (N=17)		1977 (N=19)		1978 (N=20)		1979 (N=24)		1980 (N=10)	
FACTOR	X	SD	X	SD	X	SD	X	SD	X	SD
I	44.3	4.3	44.8	4.3	39.9	4.2	40.0	4.9	40.9	2.5
II	67.9	5.9	70.3	6.1	63.1	6.2	63.3	7.2	63.5	2.9
III	26.8	4.1	25.7	3.0	22.2	2.8	21.5	3.2	21.1	2.5

TABLE 20

COMPARISON OF COR FACTORS FOR FIRST YEAR SECONDARY TEACHERS (1976-1980)

	1976 (N=4)		1977 (N=11)		1978 (N=6)		1979 (N=18)		1980 (N=5)	
FACTOR	X	SD	X	SD	X	SD	X	SD	X	SD
I	44.5	5.7	43.5	2.8	38.5	4.6	38.9	4.7	43.4	2.5
II	71.5	6.6	67.7	2.7	64.0	5.6	58.2	7.0	66.2	1.3
III	19.5	5.5	23.5	1.8	21.8	2.2	20.9	2.5	21.4	1.5

TABLE 21

COMPARISON OF TUCKMAN RATINGS FOR FIRST YEAR ELEMENTARY TEACHERS (1976-1980)

	FACTOR	1976 (N=12)		1977 (N=10)		1978 (N=18)		1979 (N=24)		1980 (N=10)	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	CREATIVITY	21.7	4.5	32.7	9.2	26.8	4.4	28.0	5.5	27.2	3.2
II	DYNAMISM (DOMINANCE OF ENERGY)	22.9	7.2	31.4	7.4	30.2	4.6	27.0	5.2	30.0	4.8
III	ORGANIZED DEMEANOR (ORGANIZATION AND CONTROL)	31.0	7.4	36.3	7.1	33.0	4.4	32.4	5.8	33.7	2.4
IV	WARMTH AND ACCEPTANCE	27.9	6.8	39.8	5.6	32.0	3.7	36.3	4.6	35.0	4.1

TABLE 22

COMPARISON OF TUCKMAN RATINGS FOR FIRST YEAR SECONDARY TEACHERS (1976-1980)

	FACTOR	1976 (N=3)		1977 (N=11)		1978 (N=6)		1979 (N=16)		1980 (N=5)	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	CREATIVITY	36.3	6.5	30.1	6.2	26.7	3.6	24.3	2.9	30.2	5.4
II	DYNAMISM (DOMINANCE OF ENERGY)	32.0	9.2	32.7	4.9	31.0	5.4	24.9	4.4	34.8	3.9
III	ORGANIZED DEMEANOR (ORGANIZATION AND CONTROL)	38.7	4.0	36.5	3.3	29.7	5.4	30.5	4.6	34.2	3.5
IV	WARMTH AND ACCEPTANCE	40.7	2.5	39.0	2.8	34.5	2.6	31.1	3.7	34.6	1.7

TABLE 23

COMPARISON OF PRINCIPAL RATINGS OF 1980 B.S. AND M.A. GRADUATES

FACTOR	B.S. ELEM. (N=11)		M.A. ELEM. (N=20)		B.S. SEC. (N=5)		M.A. SEC. (N=19)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I SUBJECT MATTER COMPETENCE	4.3	0.8	4.3	0.7	4.2	0.8	4.4	0.6
II RELATIONS WITH STUDENTS	4.5	0.7	4.4	0.7	4.4	0.9	4.5	0.7
III APPROPRIATENESS OF ASSIGNMENTS	4.5	0.5	4.2	0.7	4.2	0.5	4.2	0.6
IV OVERALL EFFECTIVENESS	4.5	0.5	4.2	0.5	4.2	0.8	4.5	0.5

TABLE 24

COMPARISON OF SET-I SCORES FOR 1980 B.S. AND M.A. GRADUATES

FACTOR	B.S. ELEM. (N=7)		M.A. ELEM. (N=8)		B.S. SEC. (N=4)		M.A. SEC. (N=17)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I FRIENDLY AND CHEERFUL	341.6	48.2	331.0	30.2	307.0	77.9	336.1	42.7
II KNOWLEDGEABLE AND POISED	326.4	53.8	331.1	16.2	328.3	34.1	334.2	41.9
III LIVELY AND INTERESTING	309.1	68.1	294.5	46.7	267.3	70.4	277.8	45.2
IV FIRM CONTROL (DISCIPLINE)	338.0	43.3	299.9	38.0	283.8	68.8	287.3	34.3
V NON-DIRECTIVE (DEMOCRATIC PROCEDURE)	266.3	53.0	236.4	32.4	238.8	76.3	256.3	45.6
COMPOSITE SCORE	316.3	26.8	298.6	24.1	285.0	54.7	300.5	31.6

TABLE 25

COMPARISON OF SET-II SCORES FOR 1980 B.S. AND M.A. GRADUATES

	FACTOR	B.S. ELEM. (N=4) X̄	B.S. ELEM. (N=4) SD	M.A. ELEM. (N=10) X̄	M.A. ELEM. (N=10) SD
I	RAPPORT	6.06	0.10	5.37	0.49
II	INTERACTIONAL COMPETENCE	4.89	0.65	4.64	0.60
III	STIMULATING, INTERACTION STYLE (COMBINATION OF RAPPORT AND INTERACTIONAL COMPETENCE)	10.96	0.73	10.01	0.83
IV	UNREASONABLE NEGATIVITY	8.63	0.51	7.92	1.55
V	FOSTERANCE OF SELF-ESTEEM	6.74	1.27	6.58	0.48

TABLE 26

COMPARISON OF FLANDERS INTERACTION ANALYSIS
FOR 1980 B.S. AND M.A. GRADUATES

RATIO	B.S. ELEM. (N=8)		M.A. ELEM. (N=20)		B.S. SEC. (N=5)		M.A. SEC. (N=18)	
	X	SD	X	SD	X	SD	X	SD
I/D	0.64	0.23	0.48	0.18	0.46	0.19	0.50	0.24
i/d	0.61	0.23	0.52	0.23	0.38	0.10	0.48	0.25
ST/TT	0.69	0.12	0.58	0.15	0.41	0.16	0.45	0.23
Sil/Tot	0.35	0.17	0.42	0.22	0.47	0.08	0.45	0.30
Lac/Tot	0.30	0.14	0.35	0.14	0.38	0.19	0.43	0.18

TABLE 27

COMPARISON OF COR FACTOR SCORES FOR
1980 B.S. AND M.A. GRADUATES

FACTOR	B.S. ELEM (N=10)		M.A. ELEM. (N=14)		B.S. SEC. (N=5)		M.A. SEC. (N=19)	
	X	SD	X	SD	X	SD	X	SD
I	40.9	2.5	41.4	3.4	43.4	2.5	40.8	3.4
II	63.5	2.9	65.1	4.3	66.2	1.3	64.9	3.0
III	21.1	2.5	23.3	2.1	21.4	1.5	22.3	3.1

TABLE 28

COMPARISON OF TUCKMAN SCORES FOR 1980 B.S. AND M.A. GRADUATES

	FACTOR	B.S. ELEM. (N=10)		M.A. ELEM. (N=20)		B.S. SEC. (N=5)		M.A. SEC. (N=17)	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	CREATIVITY	27.2	3.2	32.2	6.2	30.2	5.4	28.7	3.7
II	DYNAMISM (DOMINANCE OF ENERGY)	30.0	4.8	32.2	5.7	34.8	3.9	31.1	4.9
III	ORGANIZED DEMEANOR (ORGANIZATION AND CONTROL)	33.7	2.4	34.1	4.3	34.2	3.5	34.4	3.7
IV	WARMTH AND ACCEPTANCE	35.0	4.1	34.2	4.4	34.6	1.7	34.5	3.6

were rated slightly higher than B.S. subjects. Correlational data indicated few significant relationships.

Interaction Analysis

Results of the application of interaction analysis is shown in Table 26. In general, M.A. subjects were using more indirect than direct teaching in comparison with B.S. subjects. The results were mixed and different somewhat from the results attained in past years. No explanation can be offered for the differences.

Classroom Observation Record

The results of the application of the COR are shown in Table 27. Again the results indicated that the subjects who had achieved the M.A. were functioning at a slightly higher level, although the differences were not significant. Data from the COR were highly correlated with data from the TTFF.

Tuckman Teacher Feedback Form

Table 28 shows the data collected by use of the TTFF. In general, M.A. level subjects were rated higher than B.S. level subjects with the exception of the Warmth and Acceptance factor of the elementary teachers.

Summary

In summary, this chapter contains an overview of the results of the eighth year of the application of the Tennessee Technological University Teacher Evaluation Model to 1980 graduates of the teacher preparation program. This chapter also contains a comparison of data across five years for those first year B.S. subjects for the period 1976 through 1980. Comparisons across years and by level (elementary and secondary) indicated few differences in mean scores. Information for the secondary groups tended to be somewhat erratic due to the small sample sized. Career based line data indicated few differences across the five years of the study for the 1976 through 1980 graduates. In general, the principals rated the subjects quite highly in such areas as ability to work with fellow teachers, ethical behavior, and knowledge of subject matter. Based on measures obtained with the California F-Scale, the subjects tended to be somewhat non-authoritarian in their beliefs. Employing interaction analysis and other classroom observation techniques, revealed that the subjects were using more indirect than direct teaching methods and were exhibiting many of the characteristics of good teachers as reported in the literature. Student ratings of the subjects indicated concerns in the areas of democratic procedure and discipline. Mean scores for the M.A. subjects were generally higher than for B.S. level subjects. In most cases the differences were not significant.

References

1. Ayers, Jerry B. Report 77-2. Tennessee Technological University Teacher Evaluation Model - Year IV, Cookeville, TN: Tennessee Technological University, College of Education, 1977: (mimeo.). 11 pp. ERIC No. 148 778.

2. Ayers, Jerry B. Report 81-1. A Report of Three Surveys of the 1980 Graduates of the Teacher Preparation Programs of Tennessee Technological University, Cookeville, TN: Tennessee Technological University, College of Education, 1981. (mimeo.), 29 pp.

CHAPTER III

SUMMARIES OF SPECIAL STUDIES

Throughout the course of the operation of the Tennessee Technological University Teacher Evaluation Model numerous studies have been conducted and papers disseminated throughout the professional literature and at regional and national meetings. The Appendix of this report contains a complete listing of all papers published in professional journals, monographs and papers presented at professional meetings. This chapter consists of summaries of two special studies that were conducted during 1980-81. The first summary is a special analysis of the data collected related to graduates of the M.A. program that were teaching. The second part of this chapter contains a summary of a study conducted by Dr. Mary N. Ayers and Dr. James E. Akenson of the Department of Elementary Education of Tennessee Technological University. Drs. Ayers and Akenson, with financial assistance from the Tech Education Foundation, analyzed all accumulated data collected from graduates of the programs of the University for the preparation of early childhood and elementary teachers. Based on the analyses of the data, a series of modules was developed for inclusion in the preservice preparation of early childhood elementary education majors. In turn, these modules were field tested to determine their effects on students enrolled in the teacher preparation programs.

Study of the Graduates of the Master of Arts Program

The College of Education of the University offers a variety of courses of study leading to the Master of Arts degree. Students frequently major in areas other than elementary or secondary education but still return to the classroom. Therefore, the information that is presented in this section may not reflect truly those individuals who have completed additional work designed to specifically prepare them for the classroom. Combining data from various groups of majors and from those teaching at the elementary and secondary level is suspect from a scientific standpoint. However, it was necessary to provide adequate sample sizes and does reflect to some degree the type programs that were completed by the graduates.

This section is divided into two major subsections. The first shows comparative data for M.A. graduates who were participating in the study for the first time over the four year period 1977 through 1980. The individuals entered the study during their first full year of teaching after completing the master's degree (years of teaching experience for the groups ranged from zero to twenty years). The instrumentation and procedures employed in this study were identical to those described in the first two chapters of this report.

Comparison of Four Groups of Master's Level Graduates

Each year the graduates of the M.A. program have been invited to participate in the followup study. From 1977 through 1980, respectively, 23, 21, 20 and 40 graduates volunteered to participate. Chapter II contains comparative data with the comparable bachelor's level graduates. This section contains only comparative data for M.A. graduates.

Table 29 shows comparative data for the mean ratings given by the principals to four factors on the Teacher Evaluation by Supervisor Form. In general the 1977 graduates were rated higher by the principals than were the other groups. No explanation can be offered for the apparent drop in mean ratings across the four years of the study. Use of the ANOVA indicated no significant differences across the groups on each of the four factors.

TABLE 29

COMPARISON OF MEAN PRINCIPAL RATINGS FOR M.A. GRADUATES PARTICIPATING IN THE FOLLOWUP STUDY FOR THE FIRST YEAR

	FACTOR	1977(N=19)	1978(N=13)	1979(N=18)	1980(N=39)
I	SUBJECT MATTER COMPETENCE	4.8	4.5	4.4	4.3
II	RELATIONS WITH STUDENTS	4.6	4.5	4.7	4.5
III	APPROPRIATENESS OF ASSIGNMENTS	4.5	4.4	4.4	4.2
IV	OVERALL EFFECTIVENESS	4.6	4.5	4.5	4.3

Two forms of the Student Evaluation of Teaching were used in the study. Data from the SET-I, designed to be used in grades 4 through 12 is shown in Table 30. In general the 1977 graduates were rated higher than the other groups, with the 1980 graduates receiving the lowest mean ratings. Again no explanation can be offered for this phenomena. Application of the ANOVA for each factor indicated no significant difference in the four groups. Table 31 shows the results of the application of the SET-II in the classrooms of those graduates teaching in grades K-3. Again the 1977 graduates were rated higher than the other groups and the 1980 graduates received the lowest mean ratings. Application of the ANOVA technique indicated no significant difference in the groups.

Mean Flanders Interaction Analysis Ratios for the four groups are shown in Table 32. Application of the ANOVA indicated that the 1977 and 1978 groups achieved significantly higher ($p < .005$) Indirect/Direct teaching ratios than did the other two groups. This indicated that these two groups tended to use more indirect teaching techniques in their classrooms than did the 1979 and 1980 groups. The 1978 and 1979 groups tended to spend significantly more time ($p < .01$) than did the other groups in lecturing. No explanation can be offered for these results.

Results of the application of the Classroom Observation Record in the classrooms of the graduates are shown in Table 33. In general, 1977

TABLE 30

COMPARISON OF MEAN SET-I SCORES FOR M.A. GRADUATES PARTICIPATING IN THE FOLLOWUP STUDY FOR THE FIRST YEAR

	FACTOR	1977(N=12)	1978(N=12)	1979(N=6)	1980(N=26)
I	FRIENDLY AND CHEERFUL	336.0	334.6	348.0	324.0
II	KNOWLEDGEABLE AND POISED	350.8	358.8	350.3	320.5
III	LIVELY AND INTERESTING	301.7	287.3	307.2	287.7
IV	FIRM CONTROL (DISCIPLINE)	304.5	305.3	316.0	289.6
V	NON-DIRECTIVE (DEMOCRATIC PROCEDURE)	262.7	247.3	252.8	243.5
COMPOSITE SCORE		316.6	306.8	315.0	288.5

TABLE 31

COMPARISON OF SET-II SCORES FOR M.A. GRADUATES PARTICIPATING IN THE FOLLOWUP STUDY FOR THE FIRST YEAR

	FACTOR	1977(N=6)	1978(N=6)	1979(N=12)	1980(N=12)
I	RAPPORT	6.23	5.51	5.05	5.39
II	INTERACTIONAL COMPETENCE	4.90	4.90	3.99	4.45
III	STIMULATING, INTERACTION STYLE (COMBINATION OF RAPPORT AND INTERACTIONAL COMPETENCE)	11.12	10.40	9.72	9.84
IV	UNREASONABLE NEGATIVITY	10.11	8.41	8.88	8.20
V	FOSTERANCE OF SELF-ESTEEM	7.49	7.21	6.97	6.69

TABLE 32

COMPARISON OF MEAN FLANDERS INTERACTION ANALYSIS RATIOS FOR M.A. GRADUATES PARTICIPATING IN THE FOLLOWUP STUDY FOR THE FIRST YEAR

RATIO	1977 (N=11)	1978 (N=12)	1979 (N=6)	1980 (N=26)
I/D*	2.66	2.21	1.30	1.16
i/d	0.79	0.64	0.60	0.53
ST/TT	0.81	0.51	0.56	0.72
Sil/Tot	0.41	0.31	0.67	0.88
Lec/Tot*	0.33	0.57	0.50	0.39

*Significant difference at the .005 level between 1979 and 1977 graduates and the 1980 and 1978 and 1977 for the I/D ratio, and between the 1977 and 1978 and 1979 graduates, and between the 1980 and 1979 and 1978 graduates for the Lec/Tot ratio.

TABLE 33

COMPARISON OF COR FACTOR SCORES FOR M.A. GRADUATES PARTICIPATING IN THE FOLLOWUP STUDY FOR THE FIRST YEAR

FACTOR	1977 (N=19)	1978 (N=18)	1979 (N=18)	1980 (N=40)
I	44.4	41.0	40.8	41.1
II	68.6	62.8	61.7	65.0
III	24.6	22.2	21.4	22.8

*Significant difference at the .002 level, between the 1977 and 1979 graduates on all three factors.

graduates received higher mean scores than did the other groups. Application of the ANOVA indicated that the 1977 group was rated significantly higher ($p<.002$) on all factors than was the 1979 group. Again, no explanation can be offered for these results.

Comparison of mean scores from the application of the Tuckman Teacher Feedback Form are shown in Table 34. In general, the 1977 graduates were rated higher than the other groups. Application of the ANOVA indicated that the 1977 group was rated significantly higher ($p<.01$) than the 1979 group on the factor of warmth and acceptance.

TABLE 34

COMPARISON OF MEAN TUCKMAN RATINGS FOR M.A. GRADUATES PARTICIPATING IN THE FOLLOWUP STUDY FOR THE FIRST YEAR

FACTOR	1977(N=20)	1978(N=18)	1979(N=18)	1980(N=40)
I CREATIVITY	30.7	27.1	28.3	28.9
II DYNAMISM (DOMINANCE OF ENERGY)	31.4	32.5	29.4	30.7
III ORGANIZED DEMEANOR (ORGANIZATION AND CONTROL)	37.0	34.9	33.4	34.3
IV WARMTH AND ACCEPTANCE*	38.3	35.0	33.7	34.4

*Significant difference at the .01 level between the 1977 and 1979 groups.

In general it appeared that the 1977 graduates achieved the highest mean scores and/or ratings on the instrumentation employed in the study. Thereafter mean scores or ratings decreased with the 1980 graduates receiving the lowest. In most cases these differences were not significant. No explanation can be offered for the apparent decrease in scores. It appeared, however, that in the first year of teaching after receiving the master's degree the 1977 graduates may have been achieving at a higher level. The phenomena of decreasing scores will be followed with another group of master's level graduates entering the study for the first time in the fall of 1981.

Longitudinal Study of 1978 M.A. Graduates

In the fall of 1978, 21 M.A. graduates entered the longitudinal study for the first time. All individuals had completed the M.A. in one of several fields during the previous year and had been teaching from zero to twenty years. Comparable data were collected on the group during the fall of 1978 and again in the spring of 1980 and 1981. This section of the chapter

describes the results of following these individuals during their first three years of teaching after receiving the M.A.

Table 35 shows the results of the administration of the Teacher Evaluation by Supervisor Form to the principal of each graduate during each of the three years. Across the three year period the mean ratings for the group increased approximately 0.3 points (on a scale of 1.0 to 5.0). It should be noted that some error may have been introduced into the study because of the small N size during the 1980-81 phase of the study. Even though the differences were not significant, it appeared the principals perceived the graduates as functioning at a higher level after three years from the time of completing the master's degree. This phenomena has been evident in studies of individuals across time after receiving the bachelor's degree and entering the classroom.

TABLE 35

COMPARISON OF MEAN PRINCIPALS' RATINGS FOR M.A. GRADUATES WHO PARTICIPATED IN THE FOLLOWUP STUDY FOR THE FIRST TIME IN 1978 AND WERE FOLLOWED FOR THREE YEARS

FACTOR	1978 (N=13)	1979 (N=10)	1980 (N=5)
I SUBJECT MATTER COMPETENCE	4.5	4.9	5.0
II RELATIONS WITH STUDENTS	4.5	4.9	4.8
III APPROPRIATENESS OF ASSIGNMENTS	4.4	4.4	4.8
IV OVERALL EFFECTIVENESS	4.5	4.8	4.8

Two forms of the Student Evaluation of Teaching were employed in the classrooms of the graduates. Because of attrition from the study, meaningful information was collected only from graduates who were teaching in grades 4 - 12. The results of the use of the SET-I over a three year period are shown in Table 36. In general the mean ratings of the teachers decreased (not significantly) over time. No explanation can be offered for this decrease.

Comparison data for the three year period collected by use of Flanders Interaction Analysis are shown in Table 37. There were no significant differences across time for each of the five ratios. However, it appeared that the graduates were using more Indirect/Direct teaching in their first year

TABLE 36

COMPARISON OF MEAN SET-I SCORES FOR M.A. GRADUATES WHO PARTICIPATED IN THE FOLLOWUP STUDY FOR THE FIRST TIME IN 1978 AND WERE FOLLOWED FOR THREE YEARS

	FACTOR	1978 (N=12)	1979 (N=9)	1980 (N=3)
I	FRIENDLY AND CHEERFUL	334.6	317.7	313.7
II	KNOWLEDGEABLE AND POISED	358.8	359.6	345.0
III	LIVELY AND INTERESTING	287.3	294.9	270.3
IV	FIRM CONTROL (DISCIPLINE)	305.3	309.4	304.0
V	NON-DIRECTIVE (DEMOCRATIC PROCEDURE)	247.3	240.9	237.6
COMPOSITE SCORE		306.7	290.3	284.3

TABLE 37

COMPARISON OF MEAN FLANDERS INTERACTION ANALYSIS RATIOS FOR M.A. GRADUATES WHO PARTICIPATED IN THE FOLLOWUP STUDY FOR THE FIRST TIME IN 1978 AND WERE FOLLOWED FOR THREE YEARS

FACTOR	1978 (N=12)	1979 (N=9)	1980 (N=3)
I/D	2.21	1.57	1.55
i/d	0.31	0.38	0.37
ST/TT	0.51	0.46	0.51
Sil/Tot	0.31	0.37	0.36
Lec/Tot	0.56	0.52	0.49

after completing the M.A. than in later years. The changes in the I/D ratio may reflect the level of attrition from the study, i.e., more elementary graduates who tend to use more indirect teaching than secondary graduates.

Table 38 shows the results of the application of the Classroom Observation Record. In general the graduates were rated higher in their third year after entering the study. There were no significant differences across time.

TABLE 38

COMPARISON OF MEAN COR FACTOR SCORES FOR M.A. GRADUATES WHO PARTICIPATED IN THE FOLLOWUP STUDY FOR THE FIRST TIME IN 1978 AND WERE FOLLOWED FOR THREE YEARS

FACTOR	1978 (N=18)	1979 (N=11)	1980 (N=5)
I	41.0	41.2	43.4
II	62.8	62.2	65.2
III	22.2	22.4	22.6

The results of the application of the Tuckman Teacher Feedback Form are shown in Table 39. In general the graduates received higher ratings in their third year. Application of the ANOVA indicated a significant difference ($p<.01$) between the 1979 and 1980 groups on the factor of organization and control.

TABLE 39

COMPARISON OF MEAN TUCKMAN RATINGS FOR M.A. GRADUATES WHO PARTICIPATED IN THE FOLLOWUP STUDY FOR THE FIRST TIME IN 1978 AND WERE FOLLOWED FOR THREE YEARS

	FACTOR	1978 (N=18)	1979 (N=11)	1980 (N=5)
I	CREATIVITY	27.1	24.5	28.4
II	DYNAMISM (DOMINANCE OF ENERGY	32.5	25.4	33.6
III	ORGANIZED DEMEANOR (ORGANIZATION AND CONTROL)*	34.9	31.7	36.8
IV	WARMTH AND ACCEPTANCE	35.0	31.7	35.8

*Significant difference at the .01 level between the 1979 and 1980 group.

In general the graduates appeared to be functioning at their highest level in the third year after receiving the master's degree. These same findings are in evidence in the studies that have been made across time of graduates at the bachelor's level. It is possible, through self selection, graduates with lesser ability in teaching are voluntarily leaving the profession or moving into other non-classroom positions in the schools.

Intervention Program for Improvement of Early Childhood and Elementary Student Teaching Component[1]

The purposes of this study were to (1) identify from data collected through the application of the Tennessee Technological University Teacher Evaluation Model, five strong and five weak teacher effectiveness behaviors of elementary and early childhood graduates, (2) develop an intervention program for use with preservice elementary and early childhood majors, and (3) field test an intervention program with several groups of preservice teachers just prior to student teaching.

Initially the investigators surveyed the results of the application of the Tennessee Technological University Teacher Evaluation Model to those graduates of the programs in elementary and early childhood education. Five apparent weaknesses were identified in the graduates' backgrounds, and included (1) lack of creativity in the classroom; (2) use of warmth, acceptance and encouragement in teaching; (3) lack of dynamism in the classroom; (4) organization in the classroom; and (5) classroom control and management. Strengths exhibited by the graduates were in the areas of (1) direct oral communications; (2) interest in children and the teaching profession; (3) range of subject matter knowledge; (4) knowledge of the developmental stages of children; and (5) cultural relations and influences on attitudinal formation. The investigators developed a series of modules that were designed to overcome the weaknesses and to enhance the strengths previously identified.

During the 1980-81 school year, 30 elementary/early childhood seniors volunteered to participate in a study of the use of the modules. Fifteen were assigned to a control group and 15 were assigned to an experimental group. The experimental group attended 15 two-hour seminars prior to and during student teaching for which they received three hours of academic credit, while the control group participated only in testing.

Both groups completed the Minnesota Teacher Attitude Inventory in the fall of 1980 and again in the spring of 1981. During a practicum period, prior to student teaching both groups were observed by a trained examiner using Flanders Interaction Analysis, the Classroom Observation Record and the Tuckman Teacher Feedback Form. This process was completed again near the end of student teaching.

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[1]Work performed by Dr. Mary N. Ayers and Dr. James E. Akenson, Department of Elementary Education, Tennessee Technological University with financial assistance from the Tech Education Foundation, July 1981. A full text of the study is available from the authors.

Results of the study indicated the intervention program made a difference in the performance exhibited by the experimental group. The subjects who participated in the intervention program will be followed during the 1981-82 school year and thereafter to determine the long lasting effects of the program. It is anticipated changes will be made in several of the methods courses in the Department of Elementary Education. It is felt the modules can be incorporated into the existing program rather than developing a new course for an otherwise crowded curriculum.

CHAPTER IV

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND FUTURE PLANS

The objectives of Chapter IV were fourfold: (1) presentation of a brief summary of the total evaluation study conducted in 1980-81; (2) summarize the major conclusions of the study for the year; (3) present recommendations based on the conclusions of the study; and (4) provide a summary of the plans for the continuation of the study during 1981-82.

Summary

Four groups of subjects (graduates of the teacher education programs of Tennessee Technological University) were used in the study. The sample size by year of graduation was as follows: (1) 1977, 10; (2) 1978, 12; (3) 1979, 33; and (4) 1980, 57 (including 40 M.A. and 17 B.S. graduates). Detailed data were collected on each subject by use of standardized instruments and specially constructed questionnaires administered by trained graduate research assistants. Also, personal data about each graduate were collected from University records. Basic instrumentation and procedures for the study were pilot tested during the first year and have remained virtually unchanged. The current year included: (1) University permanent records and transcript information; (2) principal's evaluation of each subject; (3) administration of the California F-Scale (to those individuals participating in the study for the first time) to measure individual prejudices and anti-democratic tendencies; (4) administration of the Classroom Observation Record and the Tuckman Teacher Feedback Form; (5) administration of one form of the Student Evaluation of Teaching to the students of the subjects; and (6) a ten category interaction analysis system to record observed classroom behavior. All data obtained in the study were classified, coded, and keypunched for analyses. Descriptive statistics, intercorrelations and comparisons were computed. The major findings of the study were divided into three major parts, e.g., first year subjects, comparisons of first year subjects, and comparison across years for three groups of subjects.

The major findings of the study for the first year subjects (1980 graduates) were similar to those reported throughout the eight years of the project. Comparisons made between the B.S. and M.A. graduates indicated few significant differences. However, the general trend indicated that those individuals with the M.A. were functioning at a higher level. A comparison of first year data gathered across five years indicated that there had been a gradual decrease in scores and ratings, although in most cases not significantly. The differences noted were minor and in most cases no explanation can be offered for the changes. An examination of first year master's degree recipients over a four year period indicated few differences. However, there was a trend toward lower scores and ratings in 1980 as compared with data collected in 1977. An examination of three years of data collected about 1978 graduates indicated few differences across the years. In general scores and ratings were higher in 1980-81 as compared with 1978-79 data.

Based on the findings of the study, several conclusions were advanced and recommendations made for continuation of the study. These follow in the next three sections.

Conclusions

Following are the major conclusions of the study based on the findings of the eighth year of operation of the project. Additional analyses of the data are planned that may make other conclusions warranted. This section is divided into three parts: Use of the Evaluation Model, Evaluation of 1980 Graduates and Comparisons of Data Across Time, and Comparision Study of Master's Graduates.

Use of the Evaluation Model

(1) The plan of evaluation outlined in this report appeared to be useful in gathering information for modifying and improving the programs of teacher education at Tennessee Technological University.

(2) Instrumentation employed in the study appeared to be valid and provided essential information with regard to the graduates of the teacher education programs.

(3) Modifications can be made in the original model that can lead to more valid and useful information for an institution wishing to replicate the plan of evaluation.

(4) Better methods are needed for training of the research assistants in the use of the various observation instruments. It was felt some of the significant differences noted in the study may have been due to invalid or unreliable observations.

Evaluation of 1980 Graduates

(1) The B.S./B.A. and M.A. subjects who participated in the study for the first year in 1980 appeared to exhibit characteristics similar to their counterparts who had participated in earlier phases of the project.

(2) B.S. subjects who participated in the study for the first year had achieved mean scores on the ACT prior to entering the University that were lower when compared to other students who entered the University in 1977.

(3) Subjects at both the B.S. and M.A. levels tended to be less authoritarian in their beliefs than other groups. The secondary teachers achieved higher mean scores on the F-scale than elementary teachers. Thus they tended to be more authoritarian. In general over the past five years F-scale scores have increased. Thus it appeared that the 1980 graduates were more authoritarian in their beliefs than earlier graduates.

(4) In general, first year elementary teachers received higher ratings on their performance than did first year secondary teachers. This has been evident in previous years' work.

(5) Principals' ratings of performance of the graduates tended to agree with the data collected through the use of the Student Evaluation of Teaching, Classroom Observation Record and the Tuckman Teacher Feedback Form.

(6) In general, first year M.A. subjects received comparable or higher ratings on all variables than B.S. subjects. Even though the differences were generally not significant, there was a definite trend indicating that individuals receiving the master's degree were better prepared at the time of entrance into the classroom.

(7) Based on the results of the use of the Student Evaluation of Teaching students of the subjects perceived them as being highly knowledgeable and poised; and on the negative side more directive than nondirective in their teaching.

(8) As perceived by their students, the secondary teachers were more directive in their instructional activities than teachers in the lower grades.

(9) In general, student perceptions of first year elementary teachers have increased slightly over the past five years, and conversely student perceptions of first year secondary teachers have decreased.

(10) Overall scores achieved by the subjects on the National Teacher Examinations placed the individuals at approximately the 50th percentile which is comparable to other groups that have been studied.

(11) The subjects in the study appeared to be using more indirect than direct teaching in their classrooms. Indirect/Direct ratios, based on the interaction analysis system used were higher than for other comparable groups of teachers. However, over the last three years there has been a gradual decrease in the apparent amount of indirect teaching going on in the classrooms of the graduates.

(12) Many of the characteristics, reported in the literature, of good teachers were noted as a result of the administration of the Classroom Observation Record.

(13) Comparisons of all data across years for the B.S. subjects indicated few significant differences. There does appear, however, to be a definite trend in a negative direction.

(14) The use of an intervention program as described in Chapter III may influence the behavior of future subjects who may volunteer to participate in the project.

In general, the subjects of this study possessed many of the characteristics of good teachers as reported in the literature. As might be expected, it was difficult to identify specific problems. Principals praised the subjects as did their students. However, it must be kept in mind that the subjects who participated in this study were volunteers. Therefore, some bias was introduced into the total study that may make some of the conclusions invalid when applied to the total population of graduates.

Comparison Study of Master's Graduates

(1) Principals, student and independent observation ratings have generally decreased over the past four years for first year M.A. graduates.

(2) Principals' ratings of one group of M.A. graduates followed for three years increased across time. This indicated that the principals perceived the teachers as becoming more effective in their teaching with more experience.

(3) In general, student ratings of the same group of teachers decreased across time. This indicated that students perceived the teachers as becoming less effective with time.

(4) Observational data collected by use of Flanders Interaction Analysis indicated that classroom interaction changed little for those individuals followed for three years. Observations made by use of the COR and Tuckman Teacher Feedback Form indicated that independent observers viewed as teachers as becoming more effective with time.

Recommendations

Based on the conclusions of the study, it was felt the following recommendations were warranted. These recommendations centered largely around the continuation and modification of the study omitted in this report. It was left to the reader to make recommendations relative to his/her individual problems and concerns and toward needed changes in the teacher education program of the institution.

(1) The basic plan outlined in this report should be replicated during 1981-82 adding another group of subjects who completed the B.S. or M.A. requirements in 1981.

(2) Continuing contact should be maintained with other institutions and agencies pursuing similar projects and the literature related to teacher evaluation should be continuously monitored.

(3) Consideration should be given to the use of other instruments to gather data and/or to other modifications in the basic design of the evaluation project.

(4) Further analyses of the data should be made employing more sophisticated statistical techniques.

(5) Faculty of the University and other individuals should be encouraged to review the report and to request additional data analyses to fit their individual needs.

(6) Uses of the data in the development and modification of curricula should be encouraged by the administration of the University.

(7) Better methods should be developed to optimize the participation of subjects in the project.

(8) A more extensive data bank of information on all students in the teacher education programs should be established. Thereafter, a more meaningful study can be made in relation to predicting the success of graduates in teaching.

(9) Work should continue on the development of other phases of the total evaluation project, i.e., instrumentation for use with Ed.S. level graduates in the classroom and those individuals who complete graduate programs in the field of Pupil Personnel Services and are working in the field in such positions as principals, supervisors, counselors and superintendents.

Plans for the Continuation of the Study During 1981-82

During 1981-82, particular emphasis will be placed on studies of graduates of the teacher education programs for the period 1979 through 1981. Subjects who graduated prior to 1979 will be dropped from further study as per the design of the project or because of financial constraints. The potential population of 1979 and 1980 graduates was 89. In addition, a sample of approximately 50 to 60 1981 graduates will be added to the study.

Figure 2 shows an abbreviated chart for the major activities of the project during 1980-81. This same plan will be followed during 1981-82. Initially, two graduate assistants will engage in intensive studies of the use of the classroom observational instruments between September 14 through approximately October 15. Concurrent with these activities, a schedule of visitations will be developed for the 1979 and 1980 graduates that have previously participated in the study. Of the 89 individuals who have previously participated in the study, it is anticipated that about 45 will drop out of the study for a variety of reasons. The remaining subjects will be visited starting about October 20, and continue into December or early January 1982.

During the first week in October 1981, a survey questionnaire will be sent to all 1981 graduates (fall 1980, winter 1981, spring 1981, and summer 1981) of the teacher education programs of the University. All 1981 B.S./B.A. and M.A. teacher education graduates teaching within a 60-70 mile ratio of the University will be asked to participate in the study. It is anticipated that a sample of 25 to 35 B.S./B.A. graduates and 20 to 35 M.A. graduates will be selected for inclusion in the study. A schedule of visitation will be prepared in the early winter of 1982 and visits for purposes of observation and gathering baseline data will be carried out during the winter and spring of 1982.

Beginning in the late spring and continuing through the summer of 1982, data analyses will be made and a report of the ninth year activities of the project will be prepared. The report will include detailed comparisons with the results obtained in previous years. During 1981-82 one or more special studies will be carried out that will lend extra data to the total project. It is anticipated that a detailed analysis will be made of certain data collected by use of interaction analysis that has not been previously reported because of the financial limitations of the project.

In the past several years other evaluation systems have been developed by such agencies as the Georgia Department of Education. These projects will be studied in depth in 1981-82 with the view of modifying or restructuring the Tennessee Technological University Teacher Evaluation Model.

Long Range Plans

Based on the high level of acceptance by the University and the interest shown by other groups, the project has been integrated into the total operation of the teacher education program. Teacher followup evaluations will continue at the University on an indefinite basis. It is anticipated the project can be improved and that it can be even more of a project of national significance.

APPENDIX

REPORTS AND STUDIES RELATED TO THE TEACHER PREPARATION PROGRAMS OF TENNESSEE TECHNOLOGICAL UNIVERSITY

1. Ayers, Jerry B. Report 1-Restudy. A Survey of the Graduates of the Teacher Preparation Programs of Tennessee Technological University for the Period 1965 Through 1969, Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 49 pp.

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4. Ayers, Jerry B. "Predicting Quality Point Averages in Master's Degree Programs in Education," Educational and Psychological Measurement, 31:491-95, 1971.

5. Ayers, Jerry B. A Survey of Student Teachers at Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 7 pp.

6. Ayers, Jerry B. Report V-Restudy. A Report of Two Surveys of the 1971 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1972. (mimeo.), 28 pp.

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9. Ayers, Jerry B. and Michael E. Rohr. "The Relationship of Student Grade Expectations, Selected Characteristics, and Academic Performance for Education, Engineering, and Business Majors," Presented before the American Educational Research Association, April, 1972, Chicago, IL.

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16. Ayers, Jerry B. and Robert E. DuBey. "Student Teachers Attitudes Towards Supervising Teachers," The Educational Catalyst, 4:17-22, 1974.

17. Ayers, Jerry B. and Michael E. Rohr. "Relationship of Selected Variables and Success in a Teacher Preparation Program," Educational and Psychological Measurement, 34(4):933-37, Winter, 1974.

18. Ayers, Jerry B. Report 74-3. Study of the Graduates of the Library Science Program of Tennessee Technological University 1969-73. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 28 pp.

19. Bilbrey, Leroy. Human Relations Skills and Teacher Effectiveness. Unpublished M.A. Thesis, College of Education, Tennessee Technological University, 1974.

20. Ayers, Jerry B. Report 74-4. Tennessee Technological University Teacher Evaluation Model. Cookeville, TN: Tennessee Technological University, College of Education, 1974, (mimeo.), 92 pp. ERIC No. 095 169.

21. Duncan, Barbara Louise. Report 74-5. Study of the Graduates of the Counselor Education Program of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1974, (mimeo.), 33 pp.

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27. Ayers, Jerry B. Report 75-4. Tennessee Technological University Teacher Evaluation Model-Year II. Cookeville, TN: Tennessee Technological University, College of Education, 1975. (mimeo.), 61 pp. ERIC No. 123 210.

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37. Ayers, Jerry B. Report 77-2. Tennessee Technological University Teacher Evaluation Model-Year IV, Cookeville, TN: Tennessee Technological University, College of Education, 1977, 100 pp. ERIC Document No. 148 778.

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39. Ayers, Jerry B. Report 78-2. Tennessee Technological University Teacher Evaluation Model-Year V, Cookeville, TN: Tennessee Technological University, College of Education, 1978, 54 pp. ERIC Document No. 167 487.

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